Innovation in Defence: Why Industry is Vital

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Chief Defence Scientist

Australian Business Defence Industry
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Defence White Paper

An overall strategy statement with companion documents

- Strategy
- Defence Capability Plan - now Integrated Investment Program
- Defence Industry Policy Statement (DIPS)
Principal Elements of Defence Innovation

Australian Defence Organisation

Defence Driven Priorities
- Capability and enterprise needs
- Force Design
- Technology Foresighting

Next Generation Technologies Fund

Defence Innovation Hub

Funded Collaborative Research Programs

Australia’s Innovation System
- Academia
- Public Research Agencies
- Industry
  - Small to medium enterprises
  - Primes
- Industry Growth Centres
Defence Projects Are Complex: Need Innovation and Collaboration

- **Joint Strike Fighter F-35A**
  - Multiple stakeholders/governments
  - Complex innovative technology
  - Complex system integration

- **Wedgetail Aircraft**
  - Complex innovative technology

- **SATCOM**
  - Multiple stakeholders & governments

- **Air Warfare Destroyer**
  - Complex system integration

- **Future Submarine**
  - Complex government to government relationships
Success Factors for Collaboration: Industry Agrees

- Strong relationships – partnership of equals
- Long-term strategic approach with ambition
- Genuine partnership with co-investment, not a client-provider arrangement
- Specific roles and responsibilities
- Coordinated decision-making
- Certainty over the long term

Mr Michael Ward, CEO Raytheon Australia

Mr Raydon Gates, CEO Lockheed Martin
## $1.6 b Innovation Initiatives in the White Paper

<table>
<thead>
<tr>
<th>INNOVATION PROGRAM</th>
<th>LEAD</th>
<th>FUNDING to 2025-26</th>
<th>AIMED AT</th>
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<tbody>
<tr>
<td><strong>Next Generation Technologies Fund</strong></td>
<td>Defence Science and Technology</td>
<td>$730 m</td>
<td><strong>Specific technology programs</strong>, including:</td>
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<td>• Integrated ISR</td>
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<td>• Enhanced Human Performance</td>
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<td>• Medical Countermeasure Products</td>
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<td>• Multidisciplinary Material Sciences</td>
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<td>• Trusted Autonomous Systems</td>
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<td>• Advanced Sensors, Hypersonics and Directed Energy</td>
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<td><strong>Defence Innovation Hub</strong></td>
<td>Strategic Policy and Intelligence</td>
<td>$640 m</td>
<td><strong>Technology maturation in industry, industry development.</strong></td>
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<td>Interlocks Capability Technology Demonstrator Program, Defence Innovation Realisation Fund, Rapid Prototyping, Development and Evaluation Program, Priority Industry Capability Development Fund, Chief Information Officer Innovation Program and Defence Materials Technology Centre</td>
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<td><strong>Centre for Defence Industry Capability (CDIC)</strong></td>
<td>Private Sector Defence Strategic Policy &amp; Intelligence AusIndustry</td>
<td>$230 m</td>
<td><strong>Enhancing business engagement</strong>: industry development, enhancing innovation and business competitiveness and exports</td>
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Defence Innovation Hub: Implications

- Single Defence innovation system
- Overall funding ‘freed up’ to allow more activity
- Managed by the Strategic Policy & Intelligence Group
- Funding Level – approx. $60 m per year
- DST continues to support all innovation programs
DST Leads Next Generation Technologies Fund

- Integrated ISR
- Space capabilities
- Enhanced Human Performance
- Medical Countermeasure Products
- Multidisciplinary Material Sciences
- Quantum Technologies
- Trusted Autonomous Systems
- Advanced Sensors, Hypersonics and Directed Energy
Innovation Programs Under Development

**Next Generation Technologies Fund**
- Defence Cooperative Research Centre
- Strategic Research Initiative
- Multidisciplinary University Research Initiative
- Small Business Exploratory Tasks
- Grand Challenges

**The HUB**
- Technology/Concept Exploration
- Technology Demonstration (CTD)
- Prototype System (RPDE)
- Integrated Capability Demonstration
- Defence-Industry Collaboration
14 Strategic Alliances:
37 Collaborative R&D Projects Underway
Partnership Agreements with Universities

- Agreements with 30 universities under new model
- 180 agreements valued at $20 million
- Agreement processing time reduced from 86 days to 38 days
Engagement with Small and Medium Enterprises

- New SME strategy in development
Thank You and Questions

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